



DOMINION OF CANADA

THE PROVINCE OF MANITOBA

AND NORTH WEST TERRITORY.

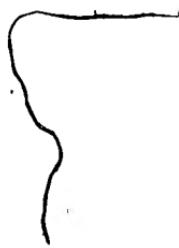
INFORMATION FOR INTENDING IMMIGRANTS.



PUBLISHED BY THE DEPARTMENT OF AGRICULTURE

OTTAWA

1879



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DOMINION OF CANADA.

THE PROVINCE OF MANITOBA.

The object of this pamphlet is to show as briefly and plainly as possible, the advantages which the Province of Manitoba possesses, for the settlement of Immigrants from the United Kingdom, especially the class of Tenant Farmers having sufficient capital to make a start in life. All the descriptions it contains will also apply in greater or less degree to the adjoining territory.

Nothing will be stated in this pamphlet which cannot be absolutely relied on, or for which there is not undoubted authority, official or other.

It is proposed to treat of the Province of Manitoba in its relations to the Continent of America and the older settled parts of Canada; and also under the several heads of Climate and Productions; Soil; Communications and Markets; General suitability for Immigrants from the United Kingdom; System of Surveys of Townships; practical directions how to take up Homesteads upon such Townships; and the Canadian Pacific Railway.

I. MANITOBA AND ITS RELATIONS TO THE CONTINENT OF AMERICA.

The Province of Manitoba contains about nine millions of acres of land. It is yet, however, but a speck as it were, as compared with the vast territory out of which it has been formed. It is situate in the very middle of the continent, being nearly equi-distant from the Atlantic and Pacific Oceans, East and West, and the Arctic Ocean and the Gulf of Mexico, on the North and South. It is in the same latitude as Belgium, and parts of Prussia and Austria. Mani-

toba and its connecting territories east of the Rocky Mountains, are in many senses, the equivalent of both Russia and Germany, on the Continent of Europe.

Manitoba is on the route of the Canadian Pacific Railway connecting the Atlantic and Pacific Oceans, not only by the shortest line, but also by the line which possesses the Gate of the Rocky Mountains ; the altitudes to be traversed being actually much less than half those now scaled by the Union and Central Pacific Railway, connecting San Francisco with Chicago, and the Eastern Railway system of the Atlantic United-States seaboard.

The Canadian Pacific Railway unlike its longer Southern rival, has the advantage of passing through what is called the "Fertile Belt" of North America, instead of the Great American Desert.

Manitoba is also the centre of River Navigation of the Northern part of Central America. The City of Winnipeg is built on the point of land forming the junction of the Assiniboine with the Red River of the North. The former has a navigation of over 600 miles ; and the latter which takes its rise in the state of Minnesota, has a navigation of about 440 miles from Moorehead, before it reaches Winnipeg ; whence it continues its course until it reaches Lake Winnipeg, which is a lake of nearly 300 miles in length ; and receives the waters of the Saskatchewan, navigable from a few miles above its source to the foot of the Rocky Mountains. The short distance between the navigable waters of this great river and the lake, is, for a present expedient, overcome by a tramway. This water system constitutes one of the most marked physical features of the interior of the Continent of North America. The total length of the rivers, is about ten thousand miles, of which between three and four thousand miles are nayigable for steamboats.

The late Governor General, Lord Dufferin, on the occasion of his visit to Manitoba in 1877, in a speech delivered at Winnipeg, expressed his appreciation of the great geographical facts which have been briefly sketched in the preceding lines, in the following words :—" From geographical position, and its peculiar characteristics, Manitoba

" may be regarded as the keystone of that mighty arch of
 " sister Provinces which spans the continent from the
 " Atlantic to the Pacific. (Great applause.) It was here
 " that Canada, emerging from her woods and forests, first
 " gazed upon her rolling prairies and unexplored North-
 " West, and learnt as by an unexpected revelation, that her
 " historical territories of the Canadas, her eastern seabards
 " of New-Brunswick, Labrador and Nova Scotia; her Lau-
 " rentian lakes and valleys, corn lands and pastures,
 " through themselves more extensive than half a dozen
 " European kingdoms, were but the vestibules and an-
 " techambers to that till then undreamt of Dominion,
 " whose illimitable dimensions alike confound the arith-
 " metic of the surveyor and the verification of the explorer.

" It was hence that, counting her past achievements
 " as but the preface and prelude to her future exertions and
 " expanding destinies, she took a fresh departure, received
 " the afflatus of a more imperial inspiration, and felt her-
 " self no longer a mere settler along the banks of a single
 " river, but the owner of half a continent, and in the mag-
 " nitude of her possession, in the wealth of her resources,
 " in the sinews of her material might, the peer of any
 " power on the earth. (Loud applause.)"

Lord Dufferin, in using this language, indulged in no exaggeration. On the contrary, he rather under than over stated the thoughts which naturally crowded on his mind.

II. CLIMATE.

The climate of Manitoba gives the conditions of decided warmth in summer and decided cold, in winter. The summer mean is $67^{\circ} 76'$, which is about the same as that of the state of New York. In winter the thermometer sinks to 30 and 40 degrees below zero; but the universal testimony of settlers is, that this degree of cold, which is accompanied by a very bright and dry atmosphere, is productive of much less unpleasant sensations, than the higher temperature of winter accompanied with humidity which is found on the eastern face of the continent. The winter drawback is the occurrence sometimes, but not very frequently, of sudden storms of wind and snow, called by

the inhabitants "blizzards". Many settlers from the older parts of Canada who have gone to live in Manitoba have expressed their preference for its climate. They find it more pleasant.

The climate of Manitoba is beyond question, one of the most healthy under the sun. Diseases of the lungs especially, are not native; and fevers of all kinds are very little known. The exceptions have been found to arise from defective sanitary conditions in the city of Winnipeg; but even these are now corrected.

Snow does not fall on the prairies to an average greater depth than 18 inches, and buffaloes and the horses of the country graze out of doors all winter. They paw the snow off the prairie grass, and grow fat upon it. Horses which have been turned out of doors to winter, have been known to return in the spring with increased numbers, from the mares having foaled. Instances are stated in which horned cattle have grazed out all winter.

The snow goes away and ploughing begins from the first to the end of April; from ten days to a fortnight earlier than in the Ottawa region; and the Red River is open from ten days to a fortnight earlier than the Ottawa River. The crops are harvested in August, the long sunny days of summer bringing vegetation of every kind to rapid maturity. The days are warm and the nights cool. The summer months are part of May, June, July, August and part of September. Autumn begins about the 20th of September and lasts until November; when the regular frost sets in; and the winter proper continues until the end of March.

The climate, in short, is continental and dry, instead of what may be termed coast and humid; and it gives the conditions of what would be termed in Europe, "Italian skies", with sufficient rains in spring and summer for the purposes of vegetation.

A climatic drawback is a liability to spring frosts, but this is a drawback common to a large part of the Continent of North America, including the whole of the older provinces of Canada, and the Northern States of the American Union. It may be remarked, moreover, that, at the time these lines are written in the month of May, the cable tele-

graph reports a very serious destruction by frost of the promised crop from the vine in France. The wheat crop does not appear to be at all injuriously affected by spring frosts in Manitoba.

It has been previously herein stated that Manitoba has the latitude of Belgium, and it has the summer suns of that Kingdom.

III. PRODUCTIONS.

Wheat may be said to be the product for which Manitoba is specially adapted. The well known American writer, Blodgett, states that "the basin of the Winnipeg is "the seat of the greatest average wheat product of the "American Continent and probably of the world." The climate and soil (to which special reference will be made hereafter) are both in an eminent degree favourable to the growth of this great cereal. It commonly attains a weight of from 63 to 66 lbs. per bushel; the average yield per acre being about 25 bushels an acre; but very much larger yields per acre are common. Yields of over 40 bushels per acre are often reported. Wheat grown in Manitoba is heavier than that grown in other parts of the Continent; and it commands a higher price, particularly from its hard and flinty nature, being favourable to the new processes of milling.

Oats and Barley, in fact, all cereals grow in great luxuriance; and are of the best quality. There are varieties of Indian Corn or Maize which will ripen, but the country is not very well adapted for the growth of this grain. There were, however, very fine specimens of Maize grown in Manitoba shown at the Dominion Exhibition at Ottawa.

Potatoes and other root crops grow with very great profusion; the potato especially, attaining an almost incredible size. The quality also is very superior, in fact, as markedly so as the size.

All the ordinary garden vegetables do well, and tomatoes and melons ripen in the open air. This may be noted as a climatic fact of special interest, as marking the degree of summer heat, and as showing, for horticultural purposes, superiority over the climate of England, where

neither of these fruits will ripen without the use of glass.

Hops grow wild on the prairies in great profusion. And as respects flax, the conditions are especially favourable to its growth; and this, with its manufacture, will soon become a great industry in the North West. The Mennonites have already begun to grow it largely, and have commenced the exportation of the seed by the car load.

All the ordinary small fruits, such as currants, strawberries, raspberries &c., are found in abundance; but apples have been very little grown, and the tests so far seem to be insufficient to establish whether they are adapted to the country. They are, however, grown in Minnesota, where grapes also ripen, and the conditions of Manitoba would seem to be as favourable as those of that State.

Trees are found in belts along the borders of rivers and streams. They would grow very rapidly on the prairies, but for prairie fires. The principal varieties are oak, ash, white wood and poplar, elm, tamarac and spruce. There is sufficient wood for fuel for present use in Manitoba; but as the population increases coal may be easily brought in by the water system or the Pacific Railway from the more western parts of the territory. Peat also may be made available. Straw also may be compressed as in Lombardy and on the steppes of Russia; and as it is used now in Manitoba by the Mennonites. Wood also may be grown with great rapidity. Young trees will as settlement progresses be protected from prairie fires.

Cattle are easily kept on the prairies and grow fat on the prairie grass. Sheep do well in this dry climate; and so far there are no diseases known among them. The meats from these animals are said to be much better than those from animals fattened in stables in the east, or in the mother country.

An Eastern Townships farmer settled near Morris, about midway between Winnipeg and the United States frontier, writing on the 1st July last thus describes the appearance of the grasses: "I wish you could see the meadows as they are now. There is a great variety of grasses. There is a red top that looks like our red top, which grows

" where the land is very wet, and is very tall and fine. It " would make first rate hay, but the land where it grows, " is too wet to cure it on. The handsomest sight however, " for hay, is a mixture of wild pea or vetch, and a fine " kind of wild grass. It is between 2 and 3 feet high, and " so thick and even all over that I do not think a ball " would fall to the ground through it. The pea is a dark " green, and the grass a pale green. To look over such a " field of thousands of acres, is a sight that cannot be seen " any where except on a prairie. On the dry prairie, the " grass is short. There is a good deal of vetch and rose " bush short and fine, almost like clover, and weeds, with " here and there, scattering spears of coarse wild grass, " spots of wild flax, and many other kinds of plants. This " is the best time to judge of the wetness or dryness of the " land. The hay is a sure indication. If you see red top, " you will find water or very moist land; if it is a rush or " rough head wild grass, the land is wetter; and where it " is white or pale-top tall grass, it is as well to keep out."

The cultivated grasses, timothy, clover &c., will answer very well; but they are little grown, so great is the profusion of natural hay.

There is a great abundance of many kinds of game, especially the feathered varieties. Prairie chickens are very numerous; and ducks and geese abound in countless multitudes.

Several kinds of excellent fish are found in the lakes and rivers. The white fish is especially notable as a valuable product of the waters of the North West. The cat-fish grows to a large size; and is much prized as food.

IV. SOIL.

The great wealth of the rich deep black soil of Manitoba is its principal attraction to the agriculturist. It appears to be an argillaceous mould or alluvium resting on a very tenacious clay which is called by some writers, lacustrine.

The depth of this black earth varies from 12 inches to 4 feet; and in sections which have been cut through on the banks of some of the rivers, it has been found to the

depth of 12 and 14 feet. Chemical analyses of this soil have been made both in Germany and Scotland ; and the results of scientific process, have established what has been popularly known, that the soil of Manitoba is among the richest in the world and the best adapted for the growth of Wheat. The analysis in Germany established that it is specially rich in nitrogen and lime ; and the same fact has been established in Edinburgh. Manure is not used, and wheat has been grown for many years in succession on the same land without any apparent exhaustion. It is one of the questions of the future, whether or not the use of manure will be desirable or necessary ; but it certainly is not for some years after the first breaking of the prairie.

The present undoubted great richness of the Prairie Soil has clearly arisen from the gathering of the droppings from birds and animals and the ashes of the prairie fires which have accumulated for ages, together with decayed vegetable matter ; the whole resting on a very retentive clay sub-soil. It is to the abundance of this stored up wealth in the soil, that the agriculturist from older countries is invited, instead of painfully endeavouring to restore worn out soils by expensive processes of manuring. An intelligent farmer from the Province of Quebec thus writes his impression of the soil of Manitoba : " As far as the quality of the land is concerned, it would be useless to look further for better. It is hard to describe the soil. It is black and works more like clay than any thing else. When it is properly worked, it becomes fine as powder, but if worked when wet, it becomes lumpy and hard. The mud holes as they dry up, form a crust like Indian rubber ; and if a rut is made before the mud gets hard enough to bear, it is exactly like a rut in frozen ground. It is hard to tell how deep the soil is. The surface is a mixture of clay and vegetable mould, and as you go down the clay becomes purer." The greatest drawback is the occasional visitation of grass-hoppers. This is a serious, and perhaps the only serious drawback of the North-West ; but on this point, the Hon. John Sutherland, a Senator, of the Dominion Parliament from Manitoba, who was born in Winnipeg, and has been all his life a practical farmer, said

in his evidence before a Committee of Parliament in 1876 : " I think that extensive settlement will prevent the ravages of the grasshoppers, and we have good reason to believe that we will be exempt from them during the coming season, as there were no deposits of eggs in the Province in 1875, and in all probability we will be relieved from that plague for many years to come. To my own knowledge the Province was not affected by ~~grasshoppers~~ for forty years previous to 1867, since ~~which~~ date we have had them off and on about every two years, or each alternate year." There have been no grasshoppers in Manitoba since this evidence was given to the date of the present pamphlet in 1879

V. COMMUNICATIONS AND MARKETS.

The water system of the middle portion of the continent of which Manitoba is the centre, was described in general terms in the first chapter of this pamphlet, as was also its position on the route of the Canadian Pacific Railway. The water system of Manitoba may, by a series of works, not of great magnitude, when compared with the vastness of the results to be obtained, be connected with the Lake and St. Lawrence system of water communication, which make so marked a feature of the continent.

The section of the Canadian Pacific Railway connecting the waters of Lake Superior with Manitoba is already under contract. It presents engineering difficulties ; but will be completed within three years.

Another section of the Canadian Pacific Railway of 100 miles west of Winnipeg has just been let to contractors and is to be immediately completed ; it is expected within one year, as the country presents no engineering difficulties. The immediate construction of this section of the Railway has for its object, the facilitating of colonisation. It is certain that settlement will immediately and very rapidly fill up the country along the whole length of its line.

There is at present railway communication with Manitoba which connects it with the railway system of Canada, *via* the United States, and with the United States

railways. A train may now be started at Halifax on the Atlantic seaboard or at Quebec on the St. Lawrence; and without any break or change, be run continuously to St. Boniface, a suburb of the city of Winnipeg.

The Red River is navigated from Moorhead and Far-go the point at which the Northern Pacific Railway crosses to Winnipeg. Numerous steamboats ply on its waters. The navigation continues to Lake Winnipeg; thence along the lake to the junction of the great River Saskatchewan, where there is a short break surmounted by a tramway; and thence the navigation continues westward across the continent to the Rocky Mountains.

Wheat has not been hitherto much cultivated in Manitoba, because there was no market; but with the present arrangements, it has been conveyed to Montreal for about 30 cts. a bushel. It is however calculated that when the branch of Railway now under contract to Thunder Bay is completed, wheat may be taken from Winnipeg to Montreal for 15 cts a bushel, and thence to Liverpool by Ocean steamer for 10 cents a bushel more. If it is further calculated that it may be grown in Manitoba and delivered by the farmer in Winnipeg at 55 cents a bushel, we shall thus have the fact of wheat from Manitoba on the wharves at Liverpool for 80 cents a bushel, or about 26s 6d. sterling per quarter. This is not only a possibility but a probability. There cannot be a question that wheat may be profitably grown and delivered in Manitoba for 55 cents a bushel; while the figures of transport stated, are based on present prices. The works on the Canadian Pacific Railway, and the rapid entry of population into the North West, will largely stimulate the production.

This opening up of markets has also led to considerable enterprise in stock raising in Manitoba, and the portions of territory beyond its western frontier. It has already been remarked that the meats from the cattle and sheep fed on these western prairies, are of superior excellence; and that many of the cattle, which are taken by rail from Chicago, the great cattle market of the American continent, to the Atlantic seaboard, and thence shipped to the United Kingdom, are in the first place, sent to Chi-

cago, from more distant points than Manitoba. There is, therefore, little doubt that cattle which have grown fat on the prairies of Manitoba, will find their way by the St. Lawrence route to the markets of the United Kingdom.

VI. GENERAL SUITABILITY FOR EMIGRANTS FROM THE UNITED KINGDOM.

An inhabitant of the United Kingdom going to Manitoba, exchanges the conditions of a very old and densely settled country for one that is entirely new; just emerging, in fact, from the wild; and very thinly settled. The settler must, therefore, make up his mind to do the roughing of pioneer life. This, however, if rugged, is not unhealthy; and the condition is sweetened by the fact, that he is establishing his own homestead, and is the master of his own broad acres, than which there are probably none under the sun containing a more generous or richer soil. None who are unwilling to undergo the hardships incident to pioneer life, should undertake to go and take up wild land in Manitoba. But those who have this endurance, who make up their minds to adapt themselves to a new country, and who have sufficient means to enable them to live over one year, may count upon success with greater certainty than in almost any other walk of life. A settler of this class, when he has fairly established himself, may, for the remainder of his life, count confidently upon the conditions of plenty and independence.

Manitoba also, unlike the old country which the settler from the United Kingdom will leave behind him, is to a great extent a treeless expanse. There are, however, groves of trees; and some very fine woods along the rivers. Forest trees also when planted and protected from the prairie fires, grow with very great rapidity. In fact it is said that a settler on one hundred acres of prairie land can get respectable trees about him in less time than he could clear the same number of acres of forest land. It is seen also in Illinois and others of the Western United States, that farms which were started some years ago on the treeless prairie, have now a respectable growth of wood around them.

The settler in Manitoba from the United Kingdom will find on the whole a much brighter and drier climate, warmer in summer and colder in winter, than that he has left behind. It is, on the whole, more pleasant to live in; and, as has been already stated, is one of the healthiest in the world.

The conditions of farming with slight adaptation to circumstances are the same, in that the settler will grow the grains and grasses, and raise the same kinds of stock and domestic animals as in the United Kingdom, without the elaborate methods and expensive manures now necessary to make very old cropped soils give their increase.

The settler from the United Kingdom, in Manitoba, will also find his language, his religion, and means to educate his children from the common school to the college.

It is on the whole therefore, to be said, that Manitoba presents not only a suitable, but an advantageous field for the settlement of those who leave the United Kingdom.

VII. SYSTEM OF SURVEY AND PRACTICAL DIRECTIONS FOR TAKING UP FARMS.

The system of surveys or of laying out the land in Manitoba, is the most simple and easily understood in the world. Every township is exactly six miles square, and this township is divided into sections of 1 mile square, or 640 acres each. These sections are again subdivided into half-sections of 320 acres; quarter sections of 160 acres; and half quarter sections of 80 acres each. These terms are legal or statutory definitions of the divisions and subdivisions of land in Manitoba, and the North West Territory of the Dominion.

The Townships start from a base line which is the International Boundary Line, which runs due East and West; and from a point a little to the West of that at which the Red River enters the Province, a line called the Principal Meridian is run due North. The Ranges of the Townships which are marked on the maps in Roman characters, run East and West from the Meridian line, and the numbers of the Townships marked on the maps in the common figures, run North from the Boundary or first Base Line.

From this very simple but scientific method of arrangement, any Township, or Section, or Subdivision of a Section, can be instantly and unerringly described. A transfer or conveyance of property may thus be made by deed in as few words as any ordinary Bill of Parcels, and that with an accuracy and absoluteness of definition to which it is quite impossible to attain by those multitudes and mazes of words written on skins of parchment, still in use in the conveyancing of the mother country.

The settler from the United Kingdom will at first find the nomenclature of this system of survey, a little new and strange; but he will, on slight acquaintance with it, become charmed with its simplicity and accuracy.

The Surveys are marked on the prairie itself by iron and other kinds of monuments and posts at the corners of the divisions and subdivisions; and so soon as the settler makes himself acquainted with these, he will instantly understand the position and extent of his own farm on the prairie, or of any other in the country.

A settler may obtain a grant of 160 acres of land free, on the condition of three years continued residence; and he may purchase on reasonable terms the adjoining portions of the section.

A settler in Manitoba may commence on comparatively small capital; that is enough to build one of the inexpensive log houses of the country, to buy a yoke of oxen and a plough, his seed grain, and sufficient provisions to enable him to live for one year, or until his first crop comes in. With a little endurance, at first, from this point the settler may attain to a position of plenty and independence.

On the other hand, a settler may take with him to Manitoba, considerable capital, and invest it in large farming operations, either in wheat growing, or stock raising, both of which he will probably find very profitable.

The sum of £125 Stg which is in round numbers about 600 dollars of Canadian currency, would enable a farmer to begin on a moderate scale of comfort. That sum would be divided, perhaps, in some cases, with a little variation, as follows:

One yoke of oxen.....	\$120.00
One waggon.....	80.00
Plough and Harrow.....	25.00
Chains, Axes, Shovels &c	30.00
Stoves, Bedsteads &c.....	60.00
House and Stable.....	150.00
Provisions.....	135.00

\$600.00

Of course a capital of £200 or \$1000 would enable a farmer to start in a better style and with more comfort; but many have started with much less and are now well off. For instance the Red River Cart which costs ~~about~~ ^{£15} ten dollars, and one ox, might do all the teaming required on a small farm to begin with, and after the first "breaking" one ox could do all the ploughing required for a family.

The German Mennonite settlers who came to Canada from South Russia a few years ago, that is the poorer families of them, started with very much less; and they are to-day very prosperous, and raise large crops of grain; besides growing flax, of which they export the seed, and are well supplied with live stock from the products of which they do a thriving trade in the Winnipeg Markets. The only question is whether families from the United Kingdom would stint themselves in the same way these thrifty settlers did; and endure what they went through to arrive at their present success.

The Mennonite outfit of the poorer families averaging 5 persons, consisted of one yoke of oxen, one cow, one plough, one waggon, and one cooking stove; the whole obtained at a cost of \$270 or £54. This comprised the outfit of one family and in the case of the poorest, two families clubbed together to use one outfit. The cost of provisions for subsistence of one family for a year was \$93 or £18.15, the provisions consisting almost wholly of flour, pork and beans. No money was expended on the buildings in which they first lived. These consisted for the first year of brush, laid sloping on poles, covered with earth. This fact is stated to show from how small a beginning, a settler may successfully start and attain plenty; but seeing that the log house of the country

can be built at so moderate a rate, probably few settlers from the United Kingdom, would be willing to do as the Mennonites did. Many a man will, however, make a hard struggle for independence, and find both his labour and his hardships sweetened by the consciousness of the daily steps he is taking towards that end. It may further be mentioned, that for some years to come, there will be railways and public works in progress, on which the poorer settler may work for a part of the time at good wages ; and so obtain means to tide over the first difficulties of a settler's life, with more comforts.

Lastly, but not least, on the contrary, even greatest in importance, is the caution to be given to the settler from the United Kingdom, to be careful to adapt himself to those methods which the experience of the country has proved to be wise, rather than try to force in a new country those practices to which he has been accustomed at home.

For instance, with respect to ploughing, or as it is called, "breaking" the prairie, the method in Manitoba is quite different from that in an old country. The prairie is covered with a rank vegetable growth, and the question is how to subdue this, and so make the land available for farming purposes. Experience has proved that the best way is to plough not deeper than *two inches*, and turn over a furrow from twelve to sixteen inches wide. This should be done during the months of June and July. It is found that the sod is effectually killed when turned over during these two months, but not when turned over during any other months in the year. A settler may get crops on land ploughed and sown in May or during other months in the year, but if he has not thoroughly subdued the prairie growth, it is clear that he will have subsequently great trouble with weeds. Grain may be sown in the following spring without further ploughing on land broken in June and July. When the sod is subdued, the land is found to be mellow and friable. The frosts of winter appear to have a pulverizing effect, and very largely supplement the labours of man.

It has happened that some farmers from older coun-

tries, in love at home with deep ploughing, have despised the methods of the country and tried deep ploughing in Manitoba. These men have come to learn wisdom from the bitterness of practical disappointment, but this is an unnecessarily expensive lesson. The settler may of course plant potatoes the first year for his family use, and do other little things of that kind. Potatoes may be put in as late as June.

Before the prairie is broken, the sod is very tough and requires great force to break it, but after it has once been turned, the subsequent ploughings are very easy, from the friability of the soil, and gang ploughs might easily be used.

On account of the great force required to break the prairie in the first instance, the settler would probably find oxen better than horses, especially as there is a liability of horses becoming sick in Manitoba when first taken there from the older parts of the continent, until they become accustomed to the new feed and the country, especially if they are worked hard. A correspondent engaged in large farming operations gives the following result of his experience; "I have been watching the amount of work done by the different sized ploughs and give you the result after careful and repeated measurements. First, the 12 inch plough turns an average furrow of $11\frac{1}{2}$ inches as nearly as can be, 10 furrows measuring 9 feet 6 to 9 feet 8 inches. The 14 inch plough turns a furrow averaging 13 inches, and the 16 inch plough a furrow averaging 15 inches. Our furrows being exactly two miles long, by my calculations, three 12 inch ploughs will in four lengths turn over 5 acres, 147 rods; or 2 acres for each plough per day less $4\frac{1}{2}$ rods. 6 horses on two 14 inch ploughs will turn over 4 acres 52 rods in a day. Two 16 inch ploughs with three horses each would do 5 acres in a day, making a difference in favour of the 12 inch ploughs of over $\frac{5}{8}$ ths of an acre. Another man is required for the three 12 inch ploughs, but $\frac{5}{8}$ ths of an acre a day will more than pay his wages." It is to be observed, however, that horses when first taken to Manitoba are not

in a condition to endure steadily for two months, work so hard as that indicated by the correspondent whose letter is quoted. It is for this reason, that oxen which are not liable to the same casualties as horses, are better for breaking the prairie. The same correspondent states that a pair of oxen will break an acre and a half a day, and every day with very little or no expense at all for feed. The wages of one man, to drive them, would cost about 30 dollars a month, without board. The expense of breaking in this way is very small.

VIII. ROUTES, AND HOW TO REACH MANITOBA.

The information on this head is exceedingly simple. The emigrant from the United Kingdom should consult the nearest Steamship agent with whom he should book. And he can take according to his means, either the cabin, the intermediate or the steerage passage, on one of the magnificent Steamers that now come to the St. Lawrence. By taking this route he will cross the ocean at its narrowest point, and in 5 or 6 days after leaving the coast of Ireland, will enter the still waters and magnificent scenery of the great St. Lawrence River, making the entire passage to Quebec, in about 8 days, on the faster vessels; or in 10 or 12 days on those which are not so fast. For the steamer's sailing and the rates of fare, he should consult the advertisements or the handbills.

The booking agent will place him in a position to be directly conveyed with the greatest expedition and comfort; and the least expense, to Manitoba.

When he arrives at Quebec, he can go *via* Chicago and St. Paul, in the United States, all the way to Manitoba by rail; or he can take the Railway from Quebec to the ports of either Sarnia or Collingwood, whence he has the choice of two steamboat lines, to the port of Duluth, at the head of Lake Superior, where he will find a Canadian agent, (Mr. Grahame) who will assist in bonding his baggage to pass through a portion of the United States, and otherwise give him every information to guide and assist him. From

the point of Duluth, he will be conveyed by Railway, all the way to Manitoba.

The emigrant or second class fare in 1879 from Quebec to Winnipeg *via* Duluth is \$25.50, and by the all rail route *via* Chicago and St. Paul \$31.50. Children under thirteen are taken at half price, and one hundred and fifty lbs. of luggage is allowed to each adult. There will probably be very little, if any, difference, in the above rates in 1880. In the case of a colony going together, the settlers might hire a railway car for the carriage of their effects, other than their luggage, to the point of the steamboat port, or continuously, and by this means, get a cheaper rate of freight. Many of the settlers from the older parts of Canada do this.

It is not recommended to the settler who is travelling to Manitoba to burden himself with heavy furniture and luggage, as the freight of these would probably cost him as much as they are worth. As a rule, the emigrants should be advised not to take with them either furniture or agricultural implements. The latter particularly, specially adapted to the country, can be cheaply purchased at Emerson or Winnipeg; but a plentiful supply of clothing and bedding should be taken, together with such articles of general use as can be conveniently and easily packed. Of course artizans who go will take their own special tools with them: but they must remember that this may be expensive if they are heavy.

The emigrants will be met at Winnipeg by Mr Hespeler, the Government agent, who will give them every possible information and assistance, and give them directions how to proceed to their lands; or if they take Emerson, as the point in the Province from which they start, they will find a shed at the Railway Station; and Buildings at Dufferin, at which they can rest, while Mr. Tetu, the Government agent, will give them information.

IX. WHEN TO GO TO MANITOBA.

The time at which the emigrant goes to Manitoba to settle is a point of very great importance. Much hardship and disappointment were occasioned in the spring of this

year (1879), from parties going before the roads were dry.

It is in fact almost a misnomer, to speak of *roads* at all, in the sense of roads found in older countries. It must be remembered that Manitoba is very newly settled ; and that there has yet been no time to make roads. Those which have been hitherto used are simply, with very little exception, trails across the prairie, which has been nowhere drained. The surface is more or less rolling, and in some places, the surface water does not dry before the summer is far advanced. Last spring was also unusually wet, and emigrants who attempted to travel 100 miles west of Winnipeg suffered the greatest hardships. Many persevered and success crowned their efforts ; but many turned back in despair, and left the country utterly disappointed, having also suffered the loss of their means.

If a settler has previously selected land, or is going to some definite point, he may with advantage avail himself of the snow roads, before the breaking up of the winter ; or he may go in the early spring months if the location selected is in a part of the country which is at that time easily accessible ; but if he goes "land hunting," as it is called, he can get best about the country in the months of July, August and September. And those who go to look for land, should be informed that if they undertake to do so, in April, May or June, they may encounter much suffering, and probably expend more than they can afford in their attempts to move about. But they may also succeed ; and very many have done so. The object of these remarks is to point out the difficulty of moving about in a state of things such as existed last spring.

A settler entering in July, August or September would have ample time to build his house and prepare for the winter, and he might do a little fall ploughing ; but the months recommended as best for first "breaking" the prairie are, as before stated, June and July.

Some settlers have thought that by going early, that is, in April or the early part of May, that they would have time to select their land and put in a crop for the first

year; but this has proved to be a mistake, and one which has led to hardships. Even if the settler had his farm selected, it would be a doubtful advantage to attempt to "break" the prairie with a view to put in his crop the first year, except indeed for potatoes and probably a few oats for his own use. It is better, as herein before explained, to allow the sod to rot after "breaking" before a crop is put in; and therefore this should be left for the second year. The business of the first year is to prepare the land, and build the homestead. There is no advantage in attempting to do more; and it is worse than folly to attempt to travel to find suitable land for settlement before the roads are dry.

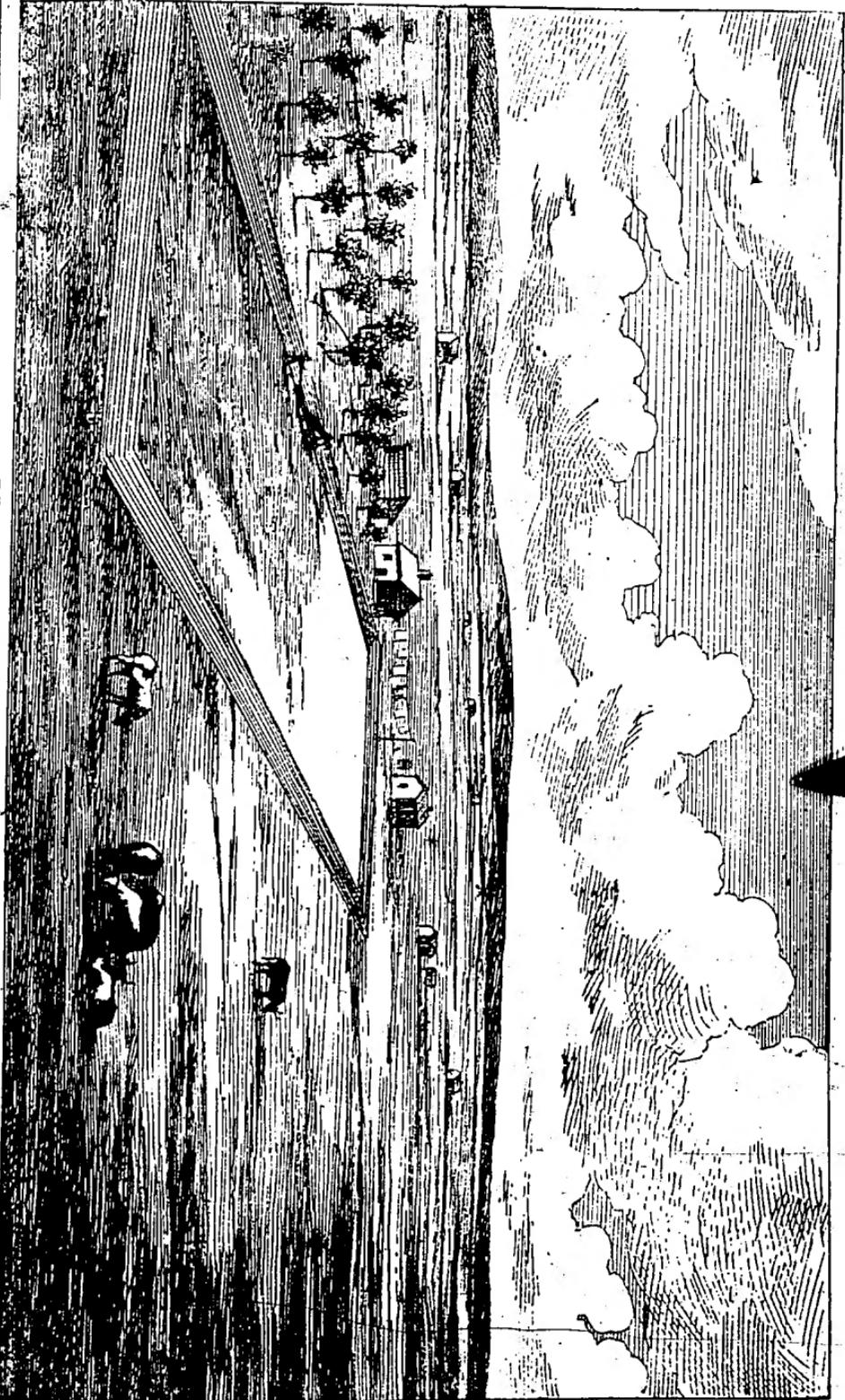
It will happen, however, in a very short time that drainage will take place, and regular roads be made: There will also be the Pacific Railway west of Winnipeg and a Colonization Railway south west of Winnipeg to Rock Lake; all of which will greatly aid the search for lands; but these things do not exist at present; and settlers are warned not to expose themselves to unnecessary hardship, by attempting too much.

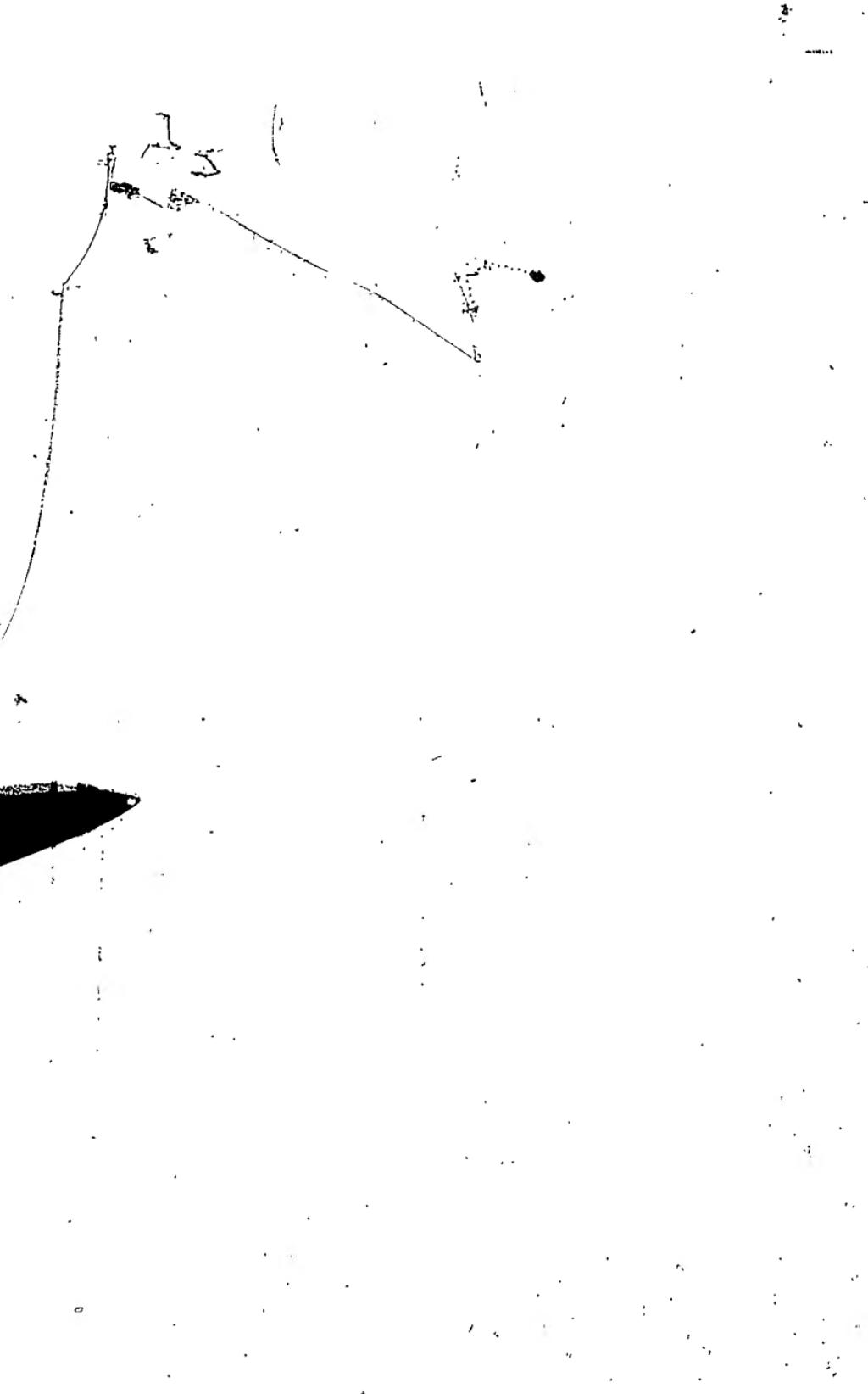
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PRairie Farm.—View No. II.
AFTER SIX YEARS' SETTLEMENT ON THE PRAIRIE.

